

Ser. No. 09/831,583
Response to Office Action f 10 July 2003
Atty Docket 116171-2

- 2 -

Amendments to the Claims

1. (currently amended) A battery sheath made of formed cold-rolled sheet metal, which is provided at least on an inside surface therof with an electroplated coating selected from a group of metals consisting of Ni, Co, Fe, Sn, In, Pd, Bi and alloys thereof, wherein electrically conductive particles comprising at least one material not selected from the group of metals are embedded in dispersed form in the electroplated coating.
2. (previously presented) The battery shcath according to Claim 17 wherein the electroplated coating contains at least 0.7% elemental carbon.
3. (previously presented) The battery shcath according to Claim 1 wherein the electroplated coating has a thickness of at least 0.2 μm.
4. (currently amended) A process for manufacturing strip stock for battery shcaths in which 0.1 to 1 mm thick cold-rolled sheet metal is provided on at least one side with a coating selected from a group consisting of Ni, Co, Fe, Sn, In, Pd, Bi and alloys thereof, in an electroplating bath, whereby the electroplating bath comprises as an additional component electrically conductive particles comprising at least one material not selected from the group of metals such that the particles are deposited on the sheet metal during electroplating together with the coating.
5. (previously presented) The process according to Claim 20 wherein the sheet metal is coated with the electroplating coating provided with the electrically conductive particles on the side that faces inwardly when the sheet metal is formed into a battery sheath.
6. (previously presented) The process according to Claim 20 wherein the carbon is suspended in the electroplating bath as finely distributed carbon, graphite, or carbon black particles.
7. (previously presented) The process according to Claim 6 characterized by a particle size of the carbon, graphite, or carbon black particles of 0.5 μm to 15 μm.

Ser. No. 09/831,583
Response to Office Action of 10 July 2003
Atty Docket 116171-2

- 3 -

8. (previously presented) The process according to claim 4 wherein a steady flow is created in the plating electrolyte tank during the plating process.
9. (previously presented) The process according to Claim 8 characterized in that the steady flow is produced by mechanical agitation, circulation, or flooding.
10. (previously presented) The process according to Claim 8 characterized by a forced flow velocity of the electrolyte of 6 to 10 m/s.
11. (previously presented) The process according to claim 8 characterized in that the electroplating bath contains suspension stabilizing and/or coagulation reducing substances.
12. (previously presented) The process of claim 4 wherein the plating electrolyte contains substances that produce hard, brittle layers (the so-called brighteners).
13. (previously presented) The process of claim 4 wherein the plating electrolyte contains brighteners or pore-sealing substances.
14. (previously presented) The process of claim 20 wherein the electrolytic deposition occurs in several stages, and the electrolyte contains elemental carbon in at least one said stage.
15. (previously presented) The process of Claim 14 wherein the material is heat-treated or annealed between electroplating treatment stages.
16. (previously presented) The process of claim 14 wherein the material is heat-treated, particularly annealed, at the end of the electroplating treatment stages.
17. (previously presented) The battery sheath of claim 1 wherein the electrically conductive particles are selected from a group consisting of: titanium disulfide, tantalum disulfide,

Ser. No. 09/831,583

- 4 -

Response to Office Action of 10 July 2003
Atty Docket 116171-2

molybdenum silicide, elemental carbon in the form of fine carbon, graphite or carbon black, and combinations thereof.

18. (previously presented) The battery sheath according to Claim 2 wherein the electroplated coating contains no more than 15% elemental carbon.

19. (previously presented) The battery sheath according to Claim 3 wherein the electroplated coating has a thickness of no more than 8 μm .

20. (previously presented) The process of claim 4 wherein the electrically conductive particles are selected from a group consisting of: titanium disulfide, tantalum disulfide, molybdenum silicide, elemental carbon in the form of fine carbon, graphite or carbon black, and combinations thereof.